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ABSTRACT

This study examined the relationships between preservice physical education teacher attributes and attitude toward teaching students classified as behaviorally disordered, mildly mentally retarded, and learning disabled. Currently enrolled in an introductory adapted physical education course, physical education teaching majors (n=1,081) from colleges and universities in 30 states completed the Physical Educators' Attitude Toward Teaching Individuals with Disabilities (PEATID-III) Preservice Version during the last two weeks of the academic term. All institutions meeting criteria were given the opportunity to participate. Based on a 5-point Likert sacle of the PEATID-III, Preservice Version, results showed that preservice teachers had a mean total attitude score of 3.51 toward teaching students with these disabilities. The central phase of the analysis looked at the following attributes: age, number of adapted physical education courses taken, year in school, number of other courses taken relating to individuals with disabilities, hands-on experience, perceived competence, hands-on experience as introductory course requirement, overall educational preparation, and certification level. Results of a forward stepwise multiple regression analysis indicated that perceived competence, overall educational preparation, and hands-on experience course requirement, were significant predictors of total attitude scores. Preservice physical education teachers with favorable attitudes perceived themselves to be competent, rated their overall educational preparation as high, and acquired hands-on experiences with individuals with disabilities as a requirement of the introductory course. (Contains 22 references.) (Author/JB)

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# Relationships Between Preservice Physical Education Teacher Attributes and Attitude Toward Students with Mild Disabilities

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Running head: Preservice PE Teacher Attributes

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**Abstract**

The purpose of this study was to determine relationships between preservice physical education teacher attributes (age, number of adapted physical education {APE} courses taken, year in school, number of other courses taken relating to individuals with disabilities, hands–on experience, perceived competence, hands–on experience introductory APE course requirement, overall educational preparation, and certification level) and attitude toward teaching students classified as behaviorally disordered, mildly mentally retarded, and learning disabled. All institutions offering both a physical education teaching major and an introductory APE course were given the opportunity to participate. Physical education teaching majors ($N$ = 1081), enrolled in the introductory APE course at institutions in 30 states, completed the PEATID–III Preservice Version [PS] (Rizzo, 1993) during the last two weeks of the academic term. In this study, reliability for PEATID–III PS was .88. Based on the 5–point Likert scale of the PEATID–III PS, results showed that preservice teachers had a mean total attitude score of 3.51 ($SD$ = .43) toward teaching students with the three disabilities. Results of a forward stepwise multiple regression analysis indicated that perceived competence [$R$ = .26, $R^2$ = .07, $F$ (1, 890) = 66.12, $p$ < .01], overall educational preparation [$R$ = .29, $R^2$ = .08, $F$ (2, 889) = 39.59, $p$ < .01], and hands–on experience course requirement [$R$ = .30, $R^2$ = .09, $F$ (3, 888) = 28.49, $p$ < .01] were significant predictors of total attitude scores. Preservice physical education teachers with favorable attitudes perceived themselves to be competent, rated their overall educational preparation as high, and acquired hands–on experiences with individuals with disabilities as a requirement of the introductory APE course.

# Relationships Between Preservice Physical Education Teacher Attributes and Attitude Toward Students with Mild Disabilities

As mandated by the rules and regulations of Public Law (PL) 94–142, (U.S. Office of Education, 1977) and its recent reauthorization, PL 101–476 (Individuals with Disabilities Education Act, 1990) [IDEA], instruction in physical education is a direct service that must be provided to all children and youth with disabilities who are between the ages of 3 and 21 years. In fact, physical education is the only academic discipline specifically mentioned in the mandates; classroom and home instruction, which are service delivery settings, are also mentioned. Therefore, one of the purposes of the federal mandates was to ensure that all students with disabilities receive appropriate instruction in physical education.

IDEA has also mandated that students with disabilities be educated in the least restrictive environment, which is the regular classroom whenever feasible. When regular class placement is not appropriate for the student with a disability, alternative placements on a service delivery continuum are to be considered. Traditionally, the regular physical educator has provided instruction for students with mild and moderate disabilities and the adapted physical education specialist for students with more severe disabilities. However, physical educators are now expected to teach students with varying abilities in the regular classroom service delivery setting. Physical education, art, and music are three curricular areas in which students with disabilities are often integrated with their nondisabled peers.

Based on results reported in the research literature regarding preservice

training of physical education teachers, it is evident that regular physical education teachers have not been adequately prepared to teach students with disabilities integrated into their regular classes (Craft, Santomier, Hogan, & Wughalter, 1985; Dummer & Davis, 1985; Folsom–Meek, 1988; Folsom–Meek, Bernard, & Mull, 1989; Marston & Leslie, 1983; Oakley, 1985). This poor preparation may account for children and youth with disabilities not receiving effective, let alone, adequate education.

Results of previous research have indicated that the attitude of regular physical education teacher toward students with disabilities is a key variable to the success of mainstreaming/inclusion (Craft, Santomier, Hogan, & Wughalter, 1985; Marston & Leslie, 1983). There is a growing knowledge base in the special and physical education literature regarding teacher attitudes toward students with disabilities. Early research examined teacher attitudes toward students with generic physical and learning–type disabilities (Rizzo, 1984). More recently, physical education researchers have examined the hierarchy of teacher attitudes toward specific disabilities (Block & Rizzo, 1993; Folsom–Meek, 1991; Rizzo, Snell, & Courtney, 1988; Rizzo & Block, 1993; Rizzo & Vispoel, 1991; Rizzo & Wright, 1988).

More recently, researchers have examined not only attitudes toward students with disabilities but also attributes associated with these attitudes. In a series of studies examining attribute variables of physical education teachers as predictors of attitudes, the following variables have been reported to be significant predictors of attitudes toward teaching students with disabilities: (a) coursework on students with disabilities taken outside physical education (Rizzo, 1985), (b)

age of teachers (Rizzo, 1985), and (c) perceived competence (Rizzo & Wright, 1988; Rizzo & Vispoel, 1991).

Prior research with regular physical education teachers has yielded somewhat negative results; attitudes of these teachers are very difficult to change. For this reason, current research should examine the attitudes of preservice physical education teachers toward individuals with disabilities. Although there is an increasing body of knowledge in the research literature regarding physical education teachers' attitudes toward students with disabilities, there is a paucity of large–scale studies examining the relationships between preservice physical education teachers attributes and attitudes toward individuals with disabilities. Rizzo's (1993) sample included 174 undergraduate physical education majors who were enrolled in physical education courses. Two attribute variables, perceived competence and coursework about special populations, were significant predictors of undergraduate physical education majors' attitudes toward students with specific disabilities including behaviorally disordered, mildly mentally retarded, and learning disabled.

In research conducted by Folsom–Meek and Nearing (1994), attitude toward individuals with disabilities and attributes displayed by preservice physical education teachers ($\underline{N}$ = 399) enrolled in the introductory adapted physical education (APE) course were examined. Results revealed that preservice physical education with favorable attitudes toward students with disabilities believed themselves to be very competent and rated their overall educational preparation as high in regard to teaching students with disabilities.

The purpose of this study was to determine relationships between preservice

physical education teacher attributes (age, number of adapted physical education {APE} courses completed, year in school, number of other courses taken relating to individuals with disabilities, hands–on experience, perceived competence, hands–on experience, introductory APE course requirement, overall educational preparation, and certification level) and overall attitude toward teaching students with labels of behaviorally disordered, mildly mentally retarded, and learning disabled.

## Method

### Subjects

Sampling procedures began with locating all possible colleges and universities with physical education teaching majors in the 30 states. Two primary resources were used to locate potential institutions of higher education—*Physical Education Gold Book 1987–1989* (Human Kinetics, 1987) and *1992–1993 National Directory Of College Athletics* (Collegiate Directories, 1992).

After obtaining all possible institutions, the investigators mailed correspondence soliciting participation and detailing criteria of the study to instructors of the introductory APE course at all institutions. Criteria were that the institution offered a physical education teaching major and that an introductory APE course was offered during the data collection period. Respondents indicated whether their institution met criteria and if they would be willing to participate. Surveys were sent to all college and university introductory APE course instructors who met criteria and who indicated an interest in participating in the study.

Subjects, preservice undergraduate physical education teaching majors who

were enrolled in the introductory APE course, completed the surveys during last two weeks of the academic term. Informed consent was obtained for all subjects according to institutional guidelines. Data were collected during the 1992–1993 and 1993–1994 academic years. Subjects (N = 1081) represented 118 colleges and universities. Of the 1081 subjects, 331 (31%) were females and 749 (69%) were males.

Instrumentation

The instrument used for the study was *Physical Educators' Attitude Toward Teaching Individuals with Disabilities [PEATID–III]* (Rizzo, 1993). The *PEATID—III* was modified for preservice teachers participating in this study *[PEATID–III Preservice Revision (PS)]*. See Figure 1 for sample of the *PEATID–III PS*.

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Insert Figure 1 about here

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*PEATID–III PS* is divided into two sections: (a) 12 statements expressing beliefs about teaching students for each of the three aforementioned disabilities in regular physical education classes (36 item total), and (b) 15 demographic and descriptive questions. The statements expressing beliefs and attitudes are rated using a 5–point Likert scale (1 = strongly disagree through 5 = strongly agree). Statements are phrased positively and negatively; the range of possible scores is 36 through 180. To interpret data according to Likert–scale values, raw scores were transformed to scale scores by dividing the total score by 36 (average total score). For this study, reliability of total scores of *PEATID–III PS* using

coefficient alpha was .88.

Data Analyses

Statistical analyses for this study were descriptive statistics on total scores and forward stepwise multiple regression procedures. The independent variables included the following: (a) age, (b) number of APE courses taken, (c) year in school, (d) number of other courses taken relating to individuals with disabilities, (e) hands–on experience, (f) perceived competence in teaching students with disabilities, (g) hands–on experience introductory APE course requirement, (h) overall educational preparation to teach students with disabilities, and (i) teaching certification level working toward. For the regression procedure, the dependent variable was the total attitude score.

## Results

Independent Variables

Descriptive statistics for each of the independent variables included in the forward stepwise multiple regression analysis are presented in graphic format. Figures 2 through 10 contain descriptive statistics for each of the independent variables.

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Insert Figures 2 through 10 here

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Dependent Variable

The dependent variable for the forward stepwise multiple regression analysis was the total attitude score. Descriptive statistics were computed for both raw and scale (transformed) scores. For raw scores, the mean was 126.36

(SD = 15.48). For scaled scores, the mean was 3.51 (SD = .43). Results of forward stepwise multiple regression analysis indicated that the best predictors of attitude toward students with mild disabilities were perceived competence [R = .26; $R^2$ = .07; F (1, 890) = 66.12; p < .0001], overall educational preparation [R = .29; $R^2$ = .08; F (2, 889) = 39.59; p < .0001], and introductory APE course requires hands–on practicum experience [R = .30; $R^2$ = .09; F (3, 888) = 28.49; p < .0001]. Although these independent variables were significant predictors, only 9% of the variance can be explained by these three variables. The proportion of variance accounted for by significant attributes was small but expected because of the theoretical orientation of the PEATID–III PS. Variables not yet identified might contribute to somewhat different predictions with other samples of preservice physical education teaching majors.

Based on the sample included in this study (N = 1081), it can be concluded that preservice physical education teachers with favorable attitudes believed themselves to be competent, rated their overall educational preparation to teach students as high, and acquired hands–on experiences with individuals with disabilities as an introductory APE course requirement.

Implications from this study relate to the significant predictor (independent) variables. Perceived competence is the major predictor of preservice physical education teachers' attitude toward students with mild disabilities. Variables other than coursework may explain perceived competence. These variables include, but are not limited to, prior experiences and part–time employment in settings such as group homes.

Overall educational preparation is also a significant predictor of preservice

physical education teachers' attitude toward teaching students with mild disabilities. Preservice physical education teachers' attitude toward working with students with disabilities may be enhanced, not only through APE courses, but also through other courses. It is not known what these courses are. Possibilities may be, but are not limited to, regular physical education courses which infuse information about individuals with disabilities as part of course content, special education courses, and courses in other areas, such as psychology, rehabilitation counseling, and sociology/group dynamics.

The practicum requirement as part of the introductory APE course was a significant predictor of attitude and exists in two–thirds of the institutions surveyed. This component of the course may well account for perceived competence and overall rating of educational preparation. Further research should examine the relationships and interactions of the variables that significantly predict preservice physical education teachers' attitude toward students with disabilities.

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## Figure Caption

Figure 1. Sample of *PEATID–III PS.*

*Physical Educators' Attitude Toward Teaching Individuals with Disabilities–III*

(Terry L. Rizzo, 1993)

[Preservice Version (Folsom–Meek & Nearing, 1993)]

**********

**********

Please circle the response which best corresponds to your agreement with each statement for each labeled disabling condition.

**********

KEY

SD = Strongly disagree SA = Strongly agree

D = Disagree U = Undecided A = Agree

**********

EXAMPLE OF NEGATIVELY PHRASED QUESTION:

Students labeled _____ should not be taught in my regular physical education classes with nondisabled students because they will require too much of my time.

| | | | | | |
|---|---|---|---|---|---|
| 28. behaviorally disordered | SD | D | U | A | SA |
| 29. mildly mentally retarded | SD | D | U | A | SA |
| 30. learning disabled | SD | D | U | A | SA |

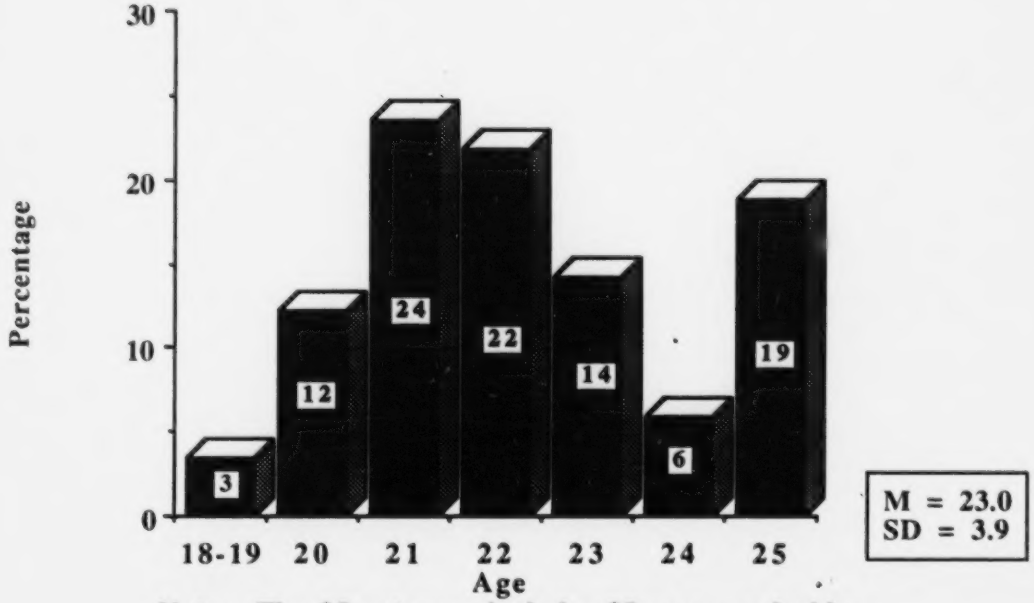
EXAMPLE OF POSITIVELY PHRASED QUESTION:

Students labeled _____ should be taught with nondisabled students in my regular physical education classes whenever possible.

| | | | | | |
|---|---|---|---|---|---|
| 34. behaviorally disordered | SD | D | U | A | SA |
| 35. mildly mentally retarded | SD | D | U | A | SA |
| 36. learning disabled | SD | D | U | A | SA |

## Figure Caption

Figure 2. Age of preservice physical education teachers.




Note: The 25 category includes 25 years and older.

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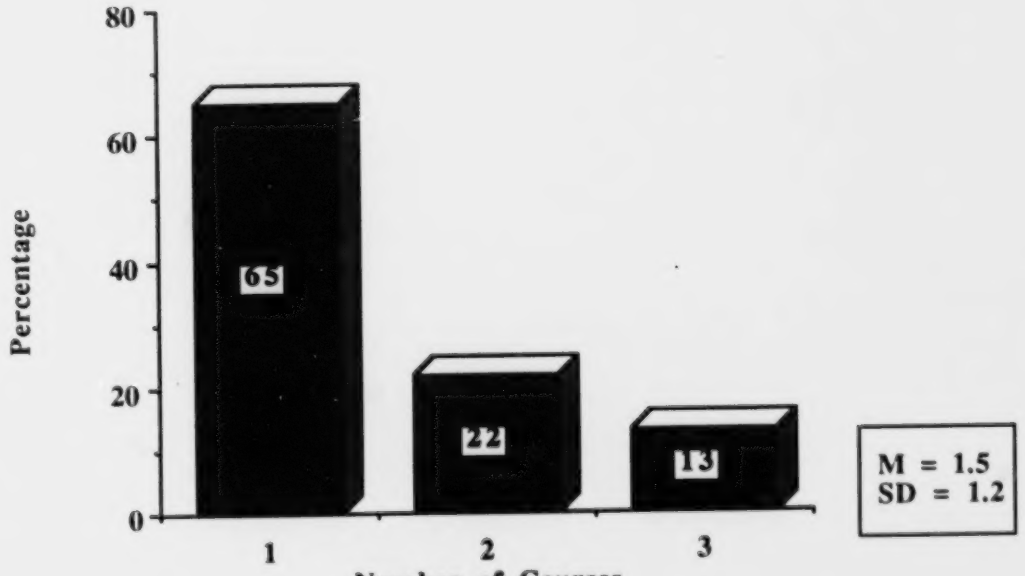
## Figure Caption

Figure 3. Number of APE courses completed by preservice physical education teachers.




Note: The #3 category includes 3 or more courses.

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## Figure Caption

Figure 4. Year in school of preservice physical education teachers.

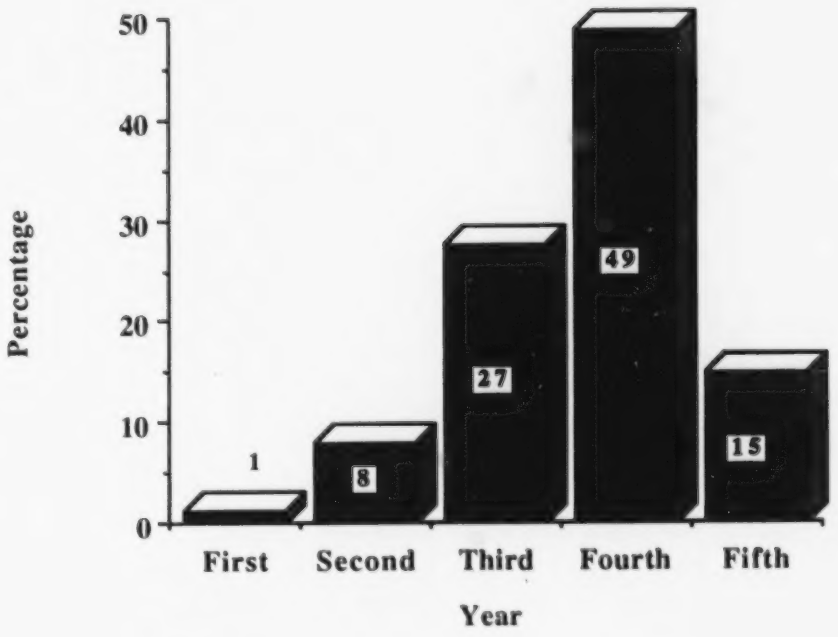


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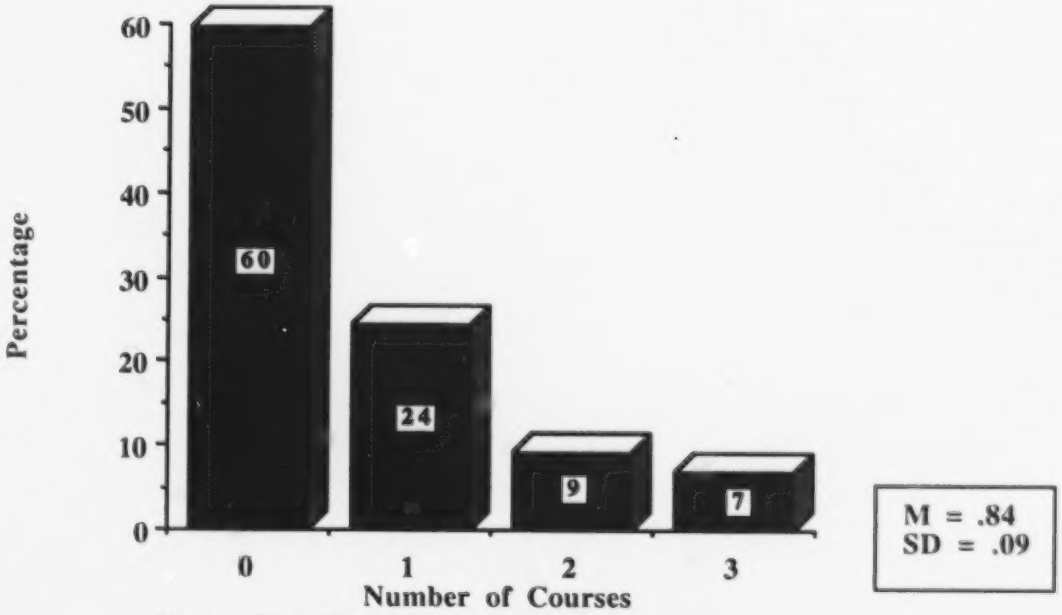
Figure Caption

Figure 5. Number of other courses taken about individuals with disabilities.




Note: The #3 category includes 3 or more courses.

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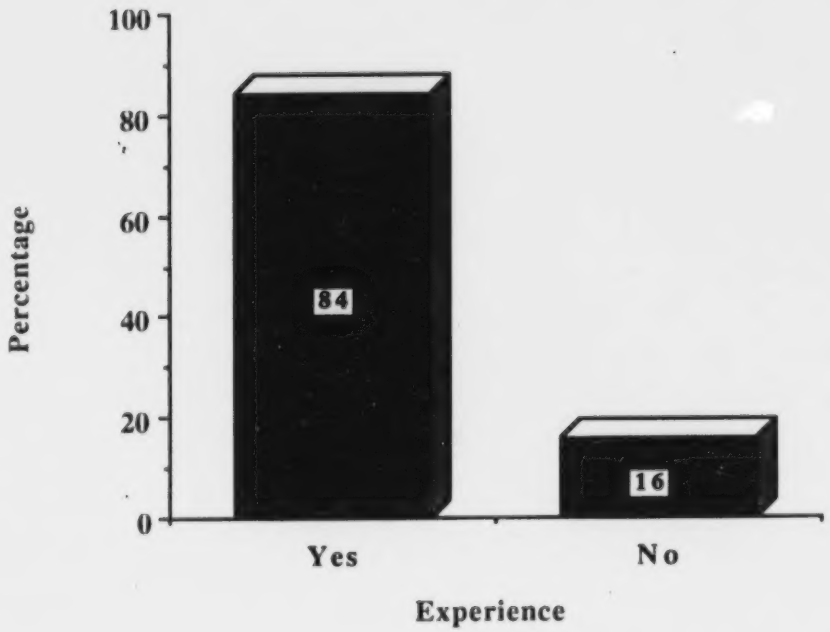
Figure Caption

Figure 6. Hands–on experience with individuals with disabilities.

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## Figure Caption

Figure 7. Perceived competence in teaching students with disabilities.

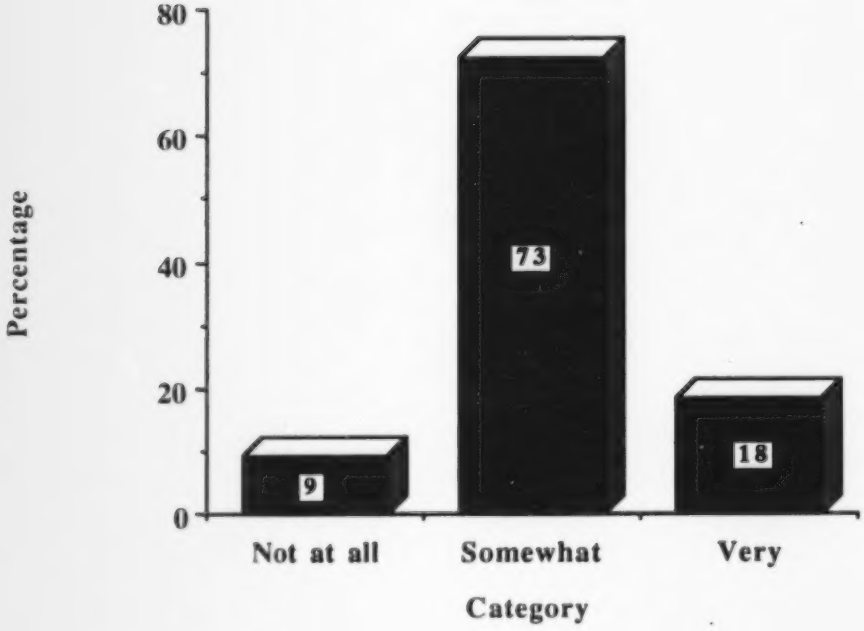


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Figure Caption

Figure 8. Introductory APE course requires hands–on practicum experience.

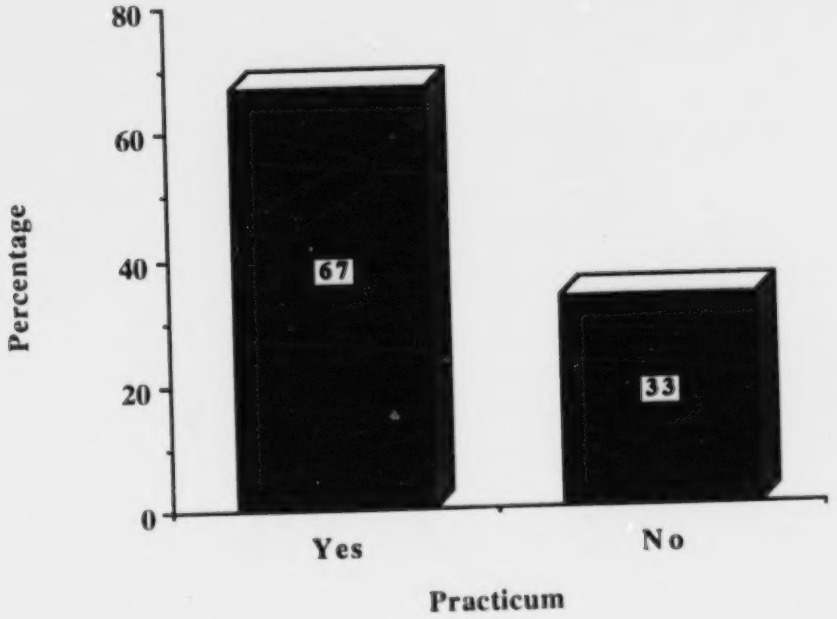




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Figure Caption

Figure 9. Rating of overall educational preparation to teach students with disabilities.

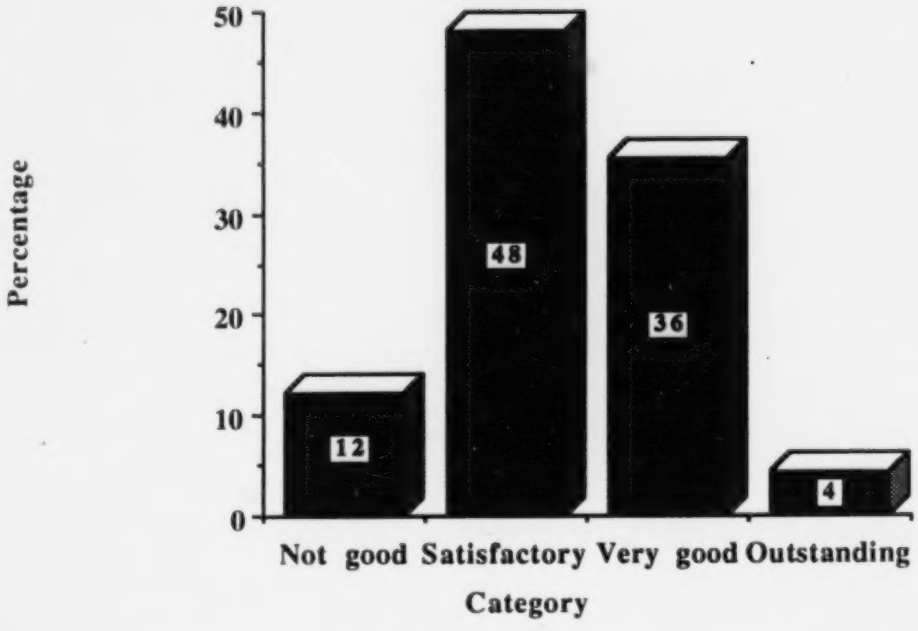


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Figure Caption

Figure 10. Teaching certification level.

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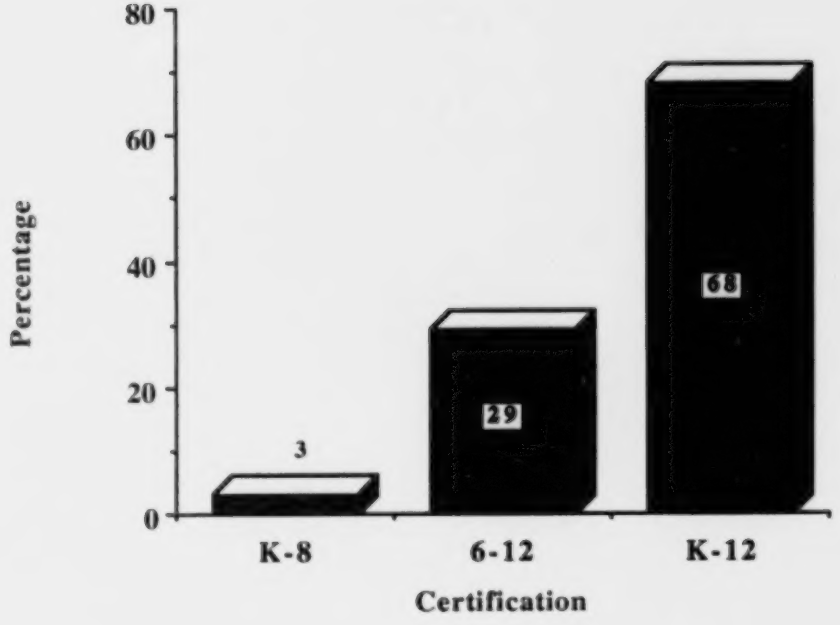
80
60
40
20
0
Percentage
3
29
68
K-8
6-12
K-12
Certification

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